



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,046	12/21/2000	Hiroshi Oohigashi	0229-0631P	5516

7590 01/15/2003

BIRCH, STEWART, KOLASCH & BIRCH, LLP
P.O. Box 747
Falls Church, VA 22040-0747

EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)
	09/741,046	OOHIGASHI, HIROSHI
	Examiner	Art Unit
	Steven D. Maki	1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 04 November 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 and 3-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1 and 3-8 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 04 November 2002 is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

Art Unit: 1733

1) Claims 1 and 3-7 are objected to because of the following informalities: In the clean copy of claim 1, “_” after wherein should be deleted and “[being]” should be deleted. Appropriate correction is required.

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 1, 3 and 5-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claims 1, 3 and 5-8, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) IS:

- (1) the omission of the limitation of angle θ_6 being less than angle θ_4 (claim 1)
- (2) the subject matter of angle θ_6 being substantially 90 degrees (claim 6) or more than 90 degrees but not more than 100 degrees (claim 7).

As to claim 1, amended claim 1 describes “angle θ_6 of more than 0 degrees”. The claimed angle θ_6 reads on an angle more than 0 degrees *and more than angle θ_4* . The original disclosure teaches “angle θ_6 of more than zero but less than the angle θ_4 ”. See page 8. The original disclosure fails to reasonably convey using an angle θ_6 greater than angle θ_4 . The original disclosure thereby fails to reasonably convey the

Art Unit: 1733

open ended range of "angle θ_6 of more than 0 degrees" which reads on an angle θ_6 of more than 0 degrees and more than angle θ_4 .

The new matter rejection relating to the above noted omission may be overcome by incorporating claim 4 into claim 1 and into claim 8.

As to claims 6 and 7, the original disclosure teaches angle θ_6 being more than zero and less than angle θ_4 . The original disclosure teaches that angle θ_6 may be for example 10 degrees. See page 8. The angle of 10 degrees fails to reasonably convey the claimed angle of substantially 90 degrees as in claim 6 and more than 90 degrees but not more than 100 degrees as in claim 7. An inside connecting groove having angle θ_6 of 90 degrees or 90-100 degrees is completely inconsistent with figure 2 which illustrates angle θ_6 as being a relatively small acute angle.

The new matter rejection of claims 6 and 7 may be overcome by appropriately amending claims 6 and 7 to describe the inclination angle θ_5 of the centerline of the lateral inside groove.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '464 (EP 943464) in view of Tsuda (US 4,962,801).

Europe '464 substantially discloses the claimed tire except for the inclination angles of the first to fourth grooves being different. See figure 3. However, it would

Art Unit: 1733

have been obvious to incline the first to fourth auxiliary slant grooves in the outside of the asymmetrical tread pattern of Europe '464 at different angles $\theta_1, \theta_2, \theta_3, \theta_4$ as claimed since Tsuda, which like Europe '464 discloses an asymmetric tread pattern, suggests using different inclination angles for the auxiliary slant grooves so as to improve cornering stability and noise reduction on off road or snow conditions. The limitation of angle θ_0 being 40-60 degrees would have been obvious in view of Europe '464's teaching to incline the main slant grooves at angle α of 60-80 degrees and Tsuda's teaching to incline main slant grooves at an angle θ_a of 30-75 degrees when using the differently inclined auxiliary slant grooves in consideration of the problem of embedding the groove with mud in use off road. The limitation of angle θ_5 being 70-100 degrees would have been obvious in view of Europe '464's teaching to incline at angle β of 80-110 degrees.

Claim 1 was amended to describe at least one inside connecting groove inclined at angle θ_6 of more than zero degrees. This subject matter is disclosed by Europe '464. In particular, the claimed at least one inside connecting groove inclined at angle θ_6 of more than zero degrees corresponds to Europe '464's inside circumferential groove 7 which is inclined at angle δ of more than zero degrees.

As to claims 4 and 6, note that Europe '464 additionally teaches that the angle δ is more than zero degrees and less than $\frac{1}{2}$ of the inclination of the outside circumferential grooves 6.

Art Unit: 1733

As to claims 6 and 7 the limitation of substantially 90 degrees (claim 6) and 90-100 degrees (claim 7) would have been obvious in view of Europe '464's teaching to incline at angle β of 80-110 degrees.

As to claim 8, note the mounting arrangement shown in figure 1 of Europe '464.

Remarks

6) Applicant's arguments with respect to claims 1 and 3-8 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 11-4-02 have been fully considered but they are not persuasive.

Applicant's arguments are not persuasive since (1) the features added to claim 1 are disclosed by Europe '464 (see Europe '464's teachings regarding the inside circumferential groove 7 being inclined at *angle δ of more than zero degrees*) and (2) the subject matter previously described in claim 2 is suggested by Tsuda's suggestion to use different inclination angles for the auxiliary slant grooves of an asymmetric tread pattern such that the angle *gradually decreases* from the tread edge so as to improve cornering stability and noise reduction on off road or snow conditions.

7) No claim is allowed.

8) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1733

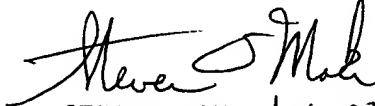
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
January 10, 2003


STEVEN D. MAKI 1-10-03
PRIMARY EXAMINER
GROUP 1300
AU 1733